# ADAPTIVELY WEIGHTED, PARTITIONED CONTEXT EDIT DISTANCE STRING MATCHING

## ABSTRACT:

A system and method for examining a string of symbols and identifying portions of the string which match a predetermined pattern using adaptively weighted, partitioned context edit distances.  A pattern is partitioned into context and value components, and candidate matches for each of the components is identified by calculating an edit distance between that component and each potentially matching set (sub-string) of symbols within the string.  One or more candidate matches having the lowest edit distances are selected as matches for the pattern.  The weighting of each of the component matches may be adapted to optimize the pattern matching and, in one embodiment, the context components may be heavily weighted to obtain matches of a value for which the corresponding pattern is not well defined.  In one embodiment, an edit distance matrix is evaluated for each of a prefix component, a value component and a suffix component of a pattern.  The evaluation of the prefix matrix provides a basis for identifying indicators of the beginning of a value window, while the evaluation of the suffix matrix provides a basis for identifying the alignment of the end of the value window.  The value within the value window can then be evaluated via the value matrix to determine a corresponding value match score.